Section 6.2

List of Contents

1 Recommended Tools and Test Equipment 1
2 Service PC (standard) 2
3 Access to the Service Level of the Digitizer: Overview 3
4 Service Program for the Digitizer (via Operation Terminal) 5
4.1 Overview 5
4.2 Working with the Operation Terminal 6
4.3 Active Keys or allowed Functions 6
4.4 Screen Layout 7
4.4.1 Action Modes 7
4.4.2 Instruction Mode 8
4.4.3 Information Mode 8
4.4.4 Decision Mode 8
5 Remote Service via ADC Web Pages 9
5.1 General Information 9
5.1.1 What are HTML pages? 9
5.1.2 Prerequisites 9
5.1.3 How to start HTML pages of a digitizer 9
5.1.4 Navigation Instructions 10
5.2 Welcome Page 10
5.3 Functions of ADC web pages: overview 11

1 Recommended Tools and Test Equipment

In addition to the common tools every service engineer is carrying in his tool box, the following auxiliary equipment is required for the service on the ADC COMPACT components:

Equipment	Spare part number	Application
Service PC Interface cable RS232, 9pin / 25 pins SUB D	- CM+9.9999.1008.0	Service program Connection Service PC - Digitizer
Lens cleaning set	MX+06-07-015	Cleaning of optical parts
Densitometer	X-Rite 331 (manual) X-Rite 380/381 (automatic)	Calibration of the film density
Ground tape	CM+9.9999.0830.0	Replacement of printed circuit boards / EPROMs
Safety lacquer	-	To be used after electronic or mechanical adjustments
Test Board	EB+44060160	To measure the pin diode signal with the oscilloscope
Laser goggles	CM+9.9999.1547.0	Note: Do not perform any adjustments in the optical path of the digitizer. Laser goggles are only needed for some very specific service interventions (see sec. 6.1).
Test sheet 35 x 43 cm	CM+7.8966.1214.0	Test exposures for mechanical adjustments
CCM Tool	see Diginet: www.diginet-agfa.de	Configuration tool
Leeds test phantom	FWW41	Test exposures
Test Images CD-ROM	CM+9.5145.1055.0	contains four test images: flatfld, flatfld2, testimg, tsheet

2 Service PC (standard)

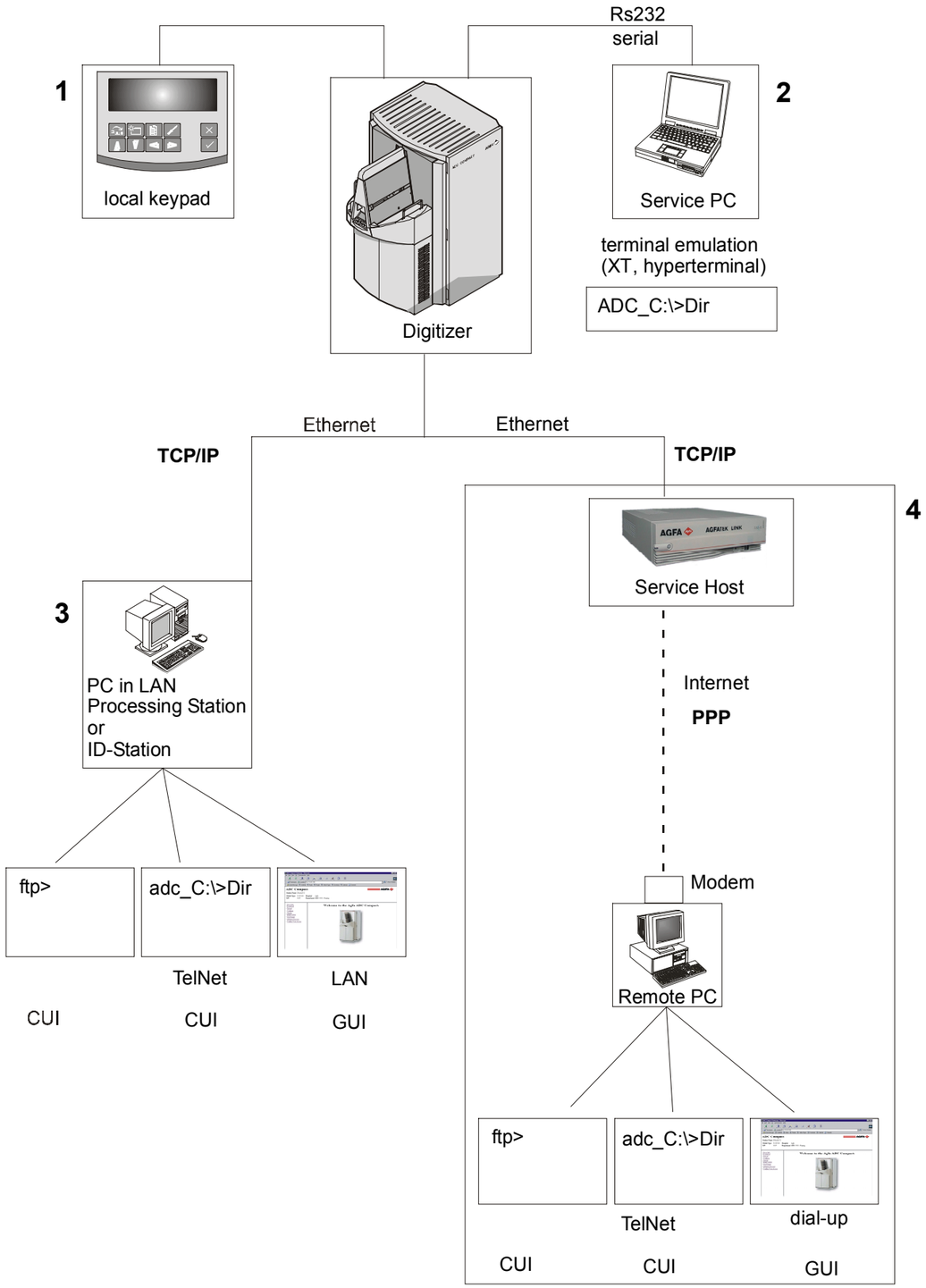
The service PC is used:
- to create the adc.cpf file with the CCM tool
- to do service via terminal emulation
- to run the show error program

Minimum standard as follows:

Type:	Laptop with ASCII keyboard
Display:	EGA / VGA compatible
CPU:	≥ 80486SX
RAM:	1 MB
Hard disk:	40 MB
Floppy disk drive:	3.5" -1.44 MB
Serial interface:	2 x RS232
Parallel interface:	1 x Centronics
Operating system:	Win 95/98/NT4.0

Service PC connection: at a RS232 interface beside the mains switch of the ADC Digitizer.

3 Access to the Service Level of the Digitizer: Overview



TCP/IP
"**T**ransmission **C**ontrol **P**rotocol over **I**nternet **P**rotocol"
Internet Protocol (IP) fragments and addresses data to the receiver. Transmission Control Protocol (TCP) sorts the fragments at the receiver and guarantees the transmission.

Ethernet
Special means to connect several local PCs to a common network.

Service Host
A dial-in host into an AGFA network at a customer site:
- remote access to AGFA devices
- performs routine work, e.g. gathering statistical data from devices
- security aspects

FTP
"**F**ile **T**ransfer **P**rotocol".
manufacturer-independent transport protocol, supported by TCP. independent from Operating Systems and SW-architecture.
Most important features: Creating, deleting and showing folders; levels out data coding, file structures, etc. between the communicating PCs.

PPP
"**P**oint to **P**oint **P**rotocol".
Standard protocol that allows connection to the Internet; supports TCP/IP. It works on the 2nd layer (data link layer) of the OSI reference model.

TelNet
makes it possible to log in remotely to any PC, provided that access is allowed.
It offers a CUI; a lot of service interventions can be performed directly via command line.

LAN
Local **A**rea **N**etwork
Several PCs are connected to each other in a limited area.

Netscape Communicator
Web-Browser needed to guarantee all the functions of ADC web-pages, (esp. uploads/downloads).

CUI
"**C**haracter based **U**ser **I**nterface"
Commands are entered in command lines via keyboard.

GUI
"**G**raphical **U**ser **I**nterface"
Commands are carried out via mouse klick on menu bars and icons.

The ADC service concept offers four different ways of access to the digitizer. Beside the two most common ways via local keypad (1) and Service PC (2),(on-site presence necessary), remote access via LAN(3) and Internet (4) gains mor e and more importance.

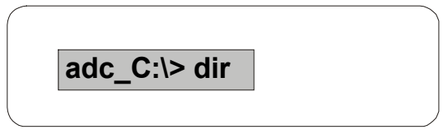
1) Local keypad
The local keypad or operation terminal is part of the digitizer and allows on-site access to the machine. All commands are directly entered via 10 keys on the keypad. Easy to handle due to online-instructions.

2) Service PC
The Service PC can be connected to the digitizer via the serial interface RS232. Commands are entered in command lines (CUI).

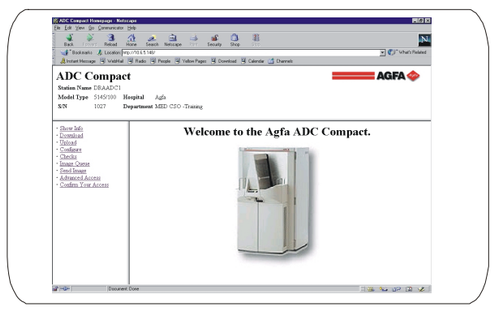
3) PC in LAN
The digitizer can be called from any PC connected to LAN. Three different ways of access are offered:

Input via ftp: only one connection at the same time

Input via TelNet: only one connection at the same time



menu -driven input: several connections possible at the same time



4) Remote PC
Dial-up connection to the digitizer. Prerequisites: Access to Internet, Service Host/Modem, (password required)
Three different ways of access are offered:(see item3).

4 Service Program for the Digitizer (via Operation Terminal)

4.1 Overview

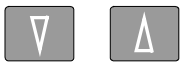
Service level 1	*Service level 2*	*Service level 3*
1 INFO	1 Device info 2 Network info	
2 MAINTENANCE	1 SAL inspection 2 Calibration 3 Test and adjust cycle 4 Confirm Maintenance 5 Confirm repair 6 Clear infocounter 7 Confirm installation 8 Skip laser warm-up	Format selection
3 SAVE on floppy	1 Info counter 2 Machine specific data 3 Test report 4 Session files 5 CPF-File	
4 SHOW error	1 Explain error code 2 Error hit list	
5 INSTALL from floppy	1 Software 2 Machine specific data 3 PMT settings (mfa/mfb) 4 Laser power factor 5 Pin-diode factor 6 Galvanometer curve 7 CPF-File 8 Language files 9 HW modification ID	
6 CONFIGURE	1 Local network ID 2 User terminal language	
7 DIAGNOSTICS	1 Scanning and signals	Laser beam position Laser power on IP
	2 Mechanical modules	Input buffer Cassette module Prescan transport Scanner Postscan transport Erasure unit Output buffer
	3 Erasure Unit	
	4 Image transmission	
8 Checks	1 Quick check 2 Check laser 3 Check destinations 4 Check disk 5 Check mechanics 6 Send flatfield 7 Send testsheet 8 Check I/O-bus	

4.2 Working with the Operation Terminal

- press . The user is asked to enter the service password
  The digitizer is locked

- **enter password**
  - no confirm is required after password entry
  - a wrong password results in a long beep. The message "`Wrong password`" appears.
    - if the correct password has not been entered within 4 seconds the program returns to the main menu of the key-operator level.
    - if no key is touched after within 60 sec, the program returns to the operator level.
- **Start service actions**
- Press again - return to operator level, release the digitizer
- the key acts as a toggle button (enter service mode - exit service mode)

4.3 Active Keys or allowed Functions

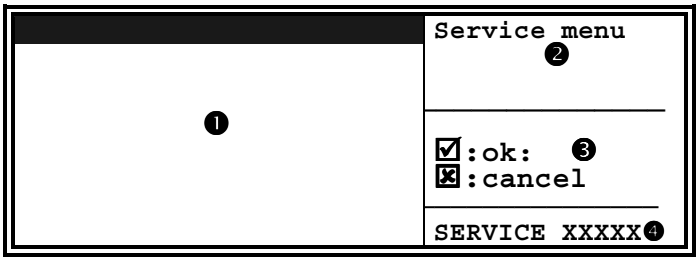
	ok - starts the highlighted function
	cancel - cancels the function and returns to the next higher menu level
	forward or backward **scrolling**
	tag - possibility to select several items out of a list
	returns immediately to the operator level, exits the service level

All other keys are inactive and cause a long beep when typing them.
No time out is foreseen in the service level.

4.4 Screen Layout

The same screen layout is used for all service menus. The screen is subdivided into four windows.

- the action window ❶ displays selection lists, instructions, information, questions
- orientation window ❷ displays the current service menu level
- key help window ❸ explains the meaning of the involved key-pad buttons
- service message window ❹ displays service messages



- ▲ and ▼ is displayed if scroll functionality is requested, e.g. if a list cannot be shown in total
- ◀ and ▶ is displayed if selection functionality is requested, e.g. if several items have to be marked in a list

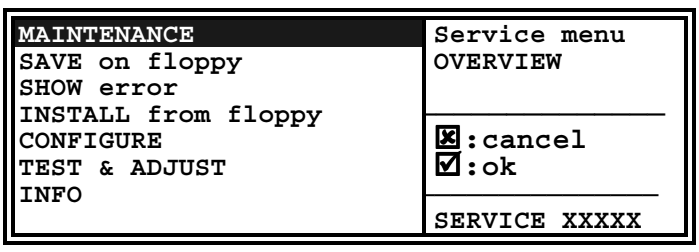
4.4.1 Action Modes

Four different action modes are possible:
Selection mode, Instruction mode, Information mode, Decision mode

Selection Mode:

- a scroll bar (inverse display) highlights an item
- the default scroll bar position is the first line
- the bar can be moved up and down with ▲ and ▼
- multiple selections (tags) are done with ◀ and ▶
- ✓ confirms the selection and starts the highlighted sub-menu
- ✕ cancels the current menu and returns to the next higher level

Example:



4.4.2 Instruction Mode

- gives instructions
- cancels the current menu and returns to the next higher level

Example:

Confirm this service intervention Press ☑ to confirm an official PM or repair	Service menu Confirmation ☒:cancel ☑:ok SERVICE XXXXX

4.4.3 Information Mode

- displays information

Example:

Hostname: COPRA1 IP-addr: 192.9.200.201 Netmask: 255.255.255.0 D-Router: 192.9.200.254 CPF-Host: 192.9.200.210 Time-Host:192.9.200.210 Mail-Host:192.9.200.210	Service menu Info Net info ☒:cancel ☑:ok SERVICE XXXXX

4.4.4 Decision Mode

- prompts the user to confirm or cancel the proposed action
- confirms the action, returns to the higher level or to the next screen
- cancels the current menu and returns to the next higher level

Example:

Do you want to change my hostname?	Service menu INSTALL CPF-File ☒:cancel ☑:ok SERVICE XXXXX

5 Remote Service via ADC Web Pages

5.1 General Information

Access for Service Interventions is possible by four different ways (details see page 3 of this section).

1. locally via keypad.
2. remotely via terminal emulation (RS232 Interface), e.g. xt, hyperterminal.
3. remotely via a PC in LAN (telnet)
4. remotely via a dial-up connection (ppp).

This document describes the access via a graphic User Interface (ADC web pages); item 3/4.
The ADC web pages complete the service concept of MI CSO. They follow the structure of the well-known User Terminal.
Access via web pages guarantees a convenient and fast service by making use of standard tools. The usage of different ports for these ways allows working simultaneously with FTP, HTTP, and TelNet.

5.1.1 What are HTML pages?

HTML stands for **H**yper **T**ext **M**arkup **L**anguage. It is a programming language for the creation of web pages for the Internet. HTML defines layout, fonts and colors of the page and integrates multimedia functions as for example graphics, animations or hyperlinks. A special Web-browser is needed to view a HTML page.

5.1.2 Prerequisites

- direct network connection or dial-up network connection; TCP / IP (e.g. Service Host)
- digitizer software COP1215 / SOL1108 loaded (restriction: upload function not implemented yet).
- web browser installed (recommended: ≥ Netscape Navigator 4.0; Internet Explorer supports all functions except file transfer).

5.1.3 How to start HTML pages of a digitizer

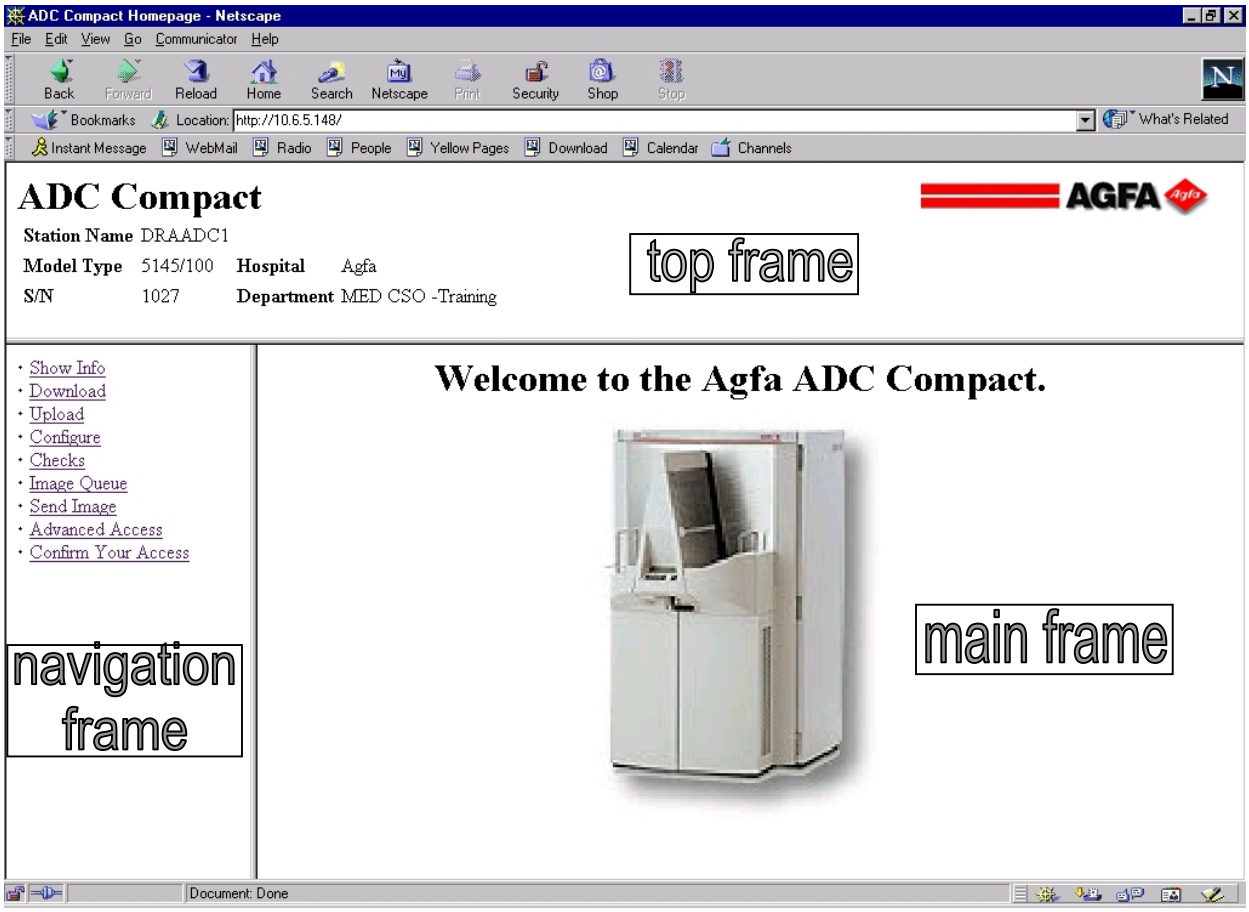
1. Make sure that the digitizer you want to examine is switched on and you can access it remotely.
2. Open your internet browser.
3. Enter the IP Address of the digitizer in the URL Address Field of your browser.
4. You will be asked to enter a user name and a password. If you do not know the proper password, please contact GSC Munich.
5. HTML pages will open with the *Welcome* Page on your screen.

5.1.4 Navigation Instructions

HTML pages are structured in a three frames surface. The top frame is static and displays information about the digitizer and its location. The lower left frame is the navigation frame and displays a set of topics. Information about a selected topic will open in the main frame. In the main frame most of the information pages are equipped with a "Home" link and a "Back" link. "Home" leads back to the *Welcome* Page. "Back" returns to the primarily selected page.

5.2 Welcome Page

After a successful login the *Welcome* Page opens.



Welcome Page

5.3 Functions of ADC web pages: overview

1st level	2nd level	Comment
Show Info	Device Info	typical info on the device, e.g. type.
	Device Status	emulates the User Interface; shows the User Terminal in current status.
	User Terminal Messages	like Device Status
	Error Messages	shows a history of errors that occurred during operation. Latest error on top.
	Network Info	shows info on network, e.g. hostname, IP-address.
	Test Report	shows and reports history on performed local service interventions on device. Latest on top.
	Info Counter	shows detailed info on device, e.g. Sw-version, serial number, modifications.
	Scanner	shows calibration lines in graphic format for various resolutions (mainly for production purposes)

When selecting files for downloads, these files are first zipped and copied to the so called download area (adc_c:\dl\). From the download area the zip – files can be downloaded to a directory of your HDD.

Download	Infocounter File	downloads the infocounter.
	Session Files	downloads one ore more `*.ses` files.
	Test Report	downloads the report file *.rpt.
	CPF File	downloads the ADC.cpf file.
	Raw Image	downloads a raw image folder. This takes several minutes.
	Machine Specific Data	downloads the machine specific data = backup.
	Any File	downloads any file.
	Show Contents of the Download Area	Displays a list of the files that have been prepared for download.
	Cleanup the Download Area	Clears the list of the files that have been prepared for download.

1st level	2nd level	Comment
Upload	Software	allows to upload the Operating System (`aos*.zip`), Application Software (`app*.zip`) or Error Messages and Diagnostics (`err*.zip`). Software patches (`patx.zip`) can be uploaded, too.
	Language Files	upload of language files to customize the system language
	CPF File	the cpf-file can be uploaded.
	Machine Specific Parameters	machine specific parameters (backup) can be uploaded.
	Any File	allows an upload of any file.
Configure	Local Network ID	allows changes in the network settings. changes are activated immediately.
	User Terminal Language	the standard language for normal user and key operator of the system can be changed. changes are activated immediately.
	Date and Time	manual setting of date and time
Checks	Quick Check	automatic selftest of the device. This test is recommended to be run as first step in troubleshooting.
	Check Laserpower	shows the history of the laser power
	Check Destinations	sends a ping to the Processing Stations defined in the cpf-file. Checks and displays these destinations, including their host names and their status.
	Check Disk(s)	check of the hard disk or floppy drive, comparable to chkdsk in MS-Dos. Being a dynamic process, this cannot be displayed in HTML.
Image Queue	Show Queue	displays all the images in the queue; On display is "Patient Name", "Location on Disk" and "Status".
	Delete Queue Entries	displays all the images that can be deleted.
	Reroute	reroutes all further incoming images to a selected destination.
	Retransmit	resends an image when the job is in the status "error". On display are all the images that can be retransmitted.

1st level	2nd level	Comment
Send Image	Test Image	Each test image ("mosaic image") can be sent to any of the Processing Stations in the network configured in the cpf-file.
	Flatfield (Calibration Pattern)	Each flatfield can be sent to any of the Processing Stations in the network configured in the cpf-file.
	Flatfield (Banding Pattern)	Each flatfield can be sent to any of the Processing Stations in the network configured in the cpf-file.
	Testsheet	Each test sheet can be sent to any of the Processing Stations in the network configured in the cpf-file.

The following item **Advanced Access** allows access via the command line. It is for advanced users only. Protective mechanisms are no longer in force.

Advanced Access		additional commands can be entered directly in the command line. Your intervention is not visible for any user. Do not interfere with ongoing user activities !
Confirm Your Access		this shell updates the infocounter. Please enter this information whenever you finished a service intervention. You can choose between `Remote Maintenance` and `Remote Repair`.